FORM PTO-1449 (Modified)

U.S. Department of Commerce Patent and Trademark Office

Attorney Docket No.: UM-06102

Serial No.: 09/778,548

INFORMATIO

DISCLOSURE STATEMENT BY APPLICANT Se Several Seeds If Necessary)

Applicant: David M. Lubman et al.

1/31

(37 CFR § 1.9	8 <i>(</i> ኬ))	BADE	•	Filing Date: 02/07/01		Group Art Un	it: 163	4
(0) 0111 1131	0(0))			U.S. PATENT DOCUMENTS			· · · · · ·	
Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing	Date
MA	1	6,002,127	12/14/99	Vestal & &.	250	282		
AM	2	5,498,545	3/12/96	Vesta	436	47		
AM	3	5,670,054	9/23/97	Kibbey et al.	210	656		
AM	4	5,131,998	7/21/92	Jorgenson a.	204	299R		1
AM	5	6,139,734	10/31/00	Settlage et al.	210	E188.2	2 5	<u>n</u>
AM	6	6,315,905	11/13/01	Settlage et al.	210	6560	CV .	CH
AM	7	20030143647 A1	7/31/03	Firm et al.		- 3	1	<u>"</u>
sm	8.	<b>2</b> .0020039747	02/07/01	Lubman, et al			22	面
gm	9	20030064527	04/26/02	Lubman, et al.	,	<u> </u>	3	0
am	10	20030058239	9 <del>4/26/0</del> 2, 103	Wall, et al.			50	
AM	11	09/968930	. <del>10/1/61,</del>	Lubman, et al.			<u></u>	
AM	12	10/448,564	<b>≥###</b> 33,	Lubman, et al.				
		FO	REIGN PATENTS C	OR PUBLISHED FOREIGN PATENT APPLICA	ATIONS			
		Document Number	Publication Date	Country / Patent Office	Class	Subclass	. Trans	lation No
MA	13	WO 01/58925	08/16/01	PCT		_		
AM	14	WO 02/088701	11/07/02	PCT	<del>(</del>			
AM	15	WO 01/58926	-03/2/03 8/1401	PCT				
MA	16	WO 01/59460	- <u>93/2/</u> 63	PCt				
-	<del>- 17 '-</del>	PCT/US03/16899	5/30/03	PCT				
MA	18	EP 0617048	9/28/94	EP	\ <u> </u>			
MA	19	WO 98/40395	9/17/98	PCT				
1m	20	WO 98/23950	6/4/98	PCT '				
AM	21	WO 97/01755	1/16/97	PCT				· .
		OTHER I	OCUMENTS (Inclu	ding Author, Title, Date, Relevant Pages, Place	of Publication)			
NM	22	Rossomando et al., p42mapk, Proc Nati	Identification of Tyr- Acad Sci U S A. 19	185 as the site of tyrosine autophosphorylation 92 Jul 1;89(13):5779-83;	of recombinant	mitogen-activated	protein ki	nase
MB	23	Henderson et al., Direct identification of an endogenous peptide recognized by multiple HLA-A2.1-specific cytotoxic T cells, Proc Natl Acad Sci U S A, 90(21): 10275-9 (1993);						
MA	24	Kingan et al., The loss of female sex pheromone after mating in the corn earworm moth Helicoverpa zea: identification of a male pheromonostatic peptide. Proc Natl Acad Sci U S A. 1995 May 23;92(11):5082-6;						
MM	25	Hungerford et al., Identification of a Novel Marker for Primordial Smooth Muscle and Its Differential Expression Pattern in Contractile vs Noncontractile Cells, J. Cell Biol. 137(4) May 19, 1997: 925-937;						
M	26	Pierce et al., Cutting Edge: The HLA-A*0101-Restricted HY Minor Histocompatibility Antigen Originates from DFFRY and Contains a Cysteinylated Cysteine Residue as Identified by a Novel Mass Spectrometric Technique, The Journal of Immunology, 163: 6360-6364 (1999);						
MM	27	Martin et al., Subfemtomole MS and MS/MS Peptide Sequence Analysis Using Nano-HPLC Micro-ESI Fourier Transform Ion Cyclotron Resonance Mass Spectrometry, Anal. Chem.; 72(18) pp 4266 - 4274 (2000) (abstract only);						
EXAMINER:			. ,,					

FORM PTO-1449 U.S. Department of Commerce Attorney Docket No.: UM-06102 Serial No.: 09/778,548 (Modified) Patent and Trademark Office INFORMATIO TEMENT BY APPLICANT Applicant: David M. Lubman et al. everal Spell If Necessary) 631 Filing Date: 02/07/01 (37 CFR § 1.98(b)) Group Art Unit: OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) Ayala et al., Use of Rotofor preparative isoelectrofocusing cell in protein purification procedure, Appl Biochem Biotechnol, 69(1):11-16 28 Bini et al., Protein expression profiles in human breast ductal carcinoma and histologically normal tissue, Electrophoresis, 18(15):2832-2841 29 Chen et al., Identification of proteins from two-dimensional gel electrophoresis of human erythroleukemia cells using capillary high 30 performance liquid chromatography/electrospray-ion trap-reflectron time-of-flight mass spectrometry with two-dimensional topographic map analysis of in-gel tryptic digest products, Rapid Commun Mass Spectrom, 13(19):1907-1916 (1999) Chen et al., Rapid identification and screening of proteins from whole cell lysates of human erythroleukemia cells in the liquid phase, using non-porous reversed phase high-performance liquid chromatography separations of proteins followed by matrix-assisted [correction of 31 multi-assisted] laser desorption/ionization mass spectrometry analysis and sequence database searching, Rapid Commun Mass Spectrom, 12(24):1994-2003 (1998) Chong et al., Rapid screening of protein profiles of human breast cancer cell lines using non-porous reversed-phase high performance liquid 32 chromatography separation with matrix-assisted laser desorption/ionization time-of-flight mass spectral analysis, Rapid Commun Mass Spectrom, 13(18):1808-1812 (1999) Dai et al., Two-layer sample preparation: a method for MALDI-MS analysis of complex peptide and protein mixtures, Anal Chem, 71(5):1087-1091 (1999) Figeys and Aebersold, Microfabricated modules for sample handling, sample concentration and flow mixing: application to protein analysis 34 by tandem mass spectrometry, J Biomech Eng, 121(1):7-12 (1999) MA 35 Fuqua et al., Induction of the estrogen-regulated "24K" protein by heat shock, Cancer Res, 49(15):4126-4129 (1989) 36 Griffin et al., Direct database searching with MALDI-PSD spectra of peptides, Rapid Commun Mass Spectrom, 9(15):1546-1551 (1995) 37 Hanash, Advances in Electrophoresis, 1-44, (1998) 38 Herbert, Advances in protein solubilisation for two-dimensional electrophoresis, Electrophoresis, 20(4-5):660-663 (1999) Immler et al., Identification of phosphorylated proteins from thrombin-activated human platelets isolated by two-dimensional gel electrophoresis by electrospray ionization-tandem mass spectrometry (ESI-MS/MS) and liquid chromatography-electrospray ionization-mass 39 spectrometry (LC-ESI-MS), Electrophoresis, 19(6):1015-1023 (1998) Liang et al., Determination of bacterial protein profiles by matrix-assisted laser desorption/ionization mass spectrometry with 40 high-performance liquid chromatography, Rapid Commun Mass Spectrom, 10(10):1219-1226 (1996) Matsui et al., Immobilized pH gradient two-dimensional gel electrophoresis and mass spectrometric identification of cytokine-regulated 41 proteins in ME-180 cervical carcinoma cells, Electrophoresis, 18(3-4):409-417 (1997) 42 Mohammad et al., Induced expression of alpha-enolase in differentiated diffuse large cell lymphoma, Enzyme Protein, 48(1):37-44 (1994) Neubauer and Mann, Mapping of phosphorylation sites of gel-isolated proteins by nanoelectrospray tandem mass spectrometry: potentials 43 and limitations, Anal Chem, 71(1):235-242 (1999) Nilsson et al., Isolation and characterization of proteins from human lymphocyte nuclei using matrix-assisted laser desorption/ionization 44 time-of-flight mass spectrometry and post-source decay analysis, Rapid Commun Mass Spectrom, 11(6):610-612 (1997) Opiteck et al., Comprehensive two-dimensional high-performance liquid chromatography for the isolation of overexpressed proteins and 45 proteome mapping, Anal Biochem, 258(2):349-361 (1998) Patterson and Aebersold, Mass spectrometric approaches for the identification of gel-separated proteins, Electrophoresis, 16(10):1791-1814 46 Pinto et al., An enhanced microfluidic chip coupled to an electrospray Qstar mass spectrometer for protein identification, Electrophoresis, 47

Examiner: EXAMINER:

Marshe

19(5):818-825 (1998)

87(3):882-886 (1996

48

40

12-27-03 Date Considered:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of the form with next communication to applicant.

Rasmussen et al., Two-dimensional gel database of human breast carcinoma cell expressed proteins: an update, Electrophoresis,

Redner et al., The t(5;17) variant of acute promyelocytic leukemia expresses a nucleophosmin-retinoic acid receptor fusion, Bloo

FORM PTO-1449 U.S. Department of Commerce Attorney Docket No.: UM-06102 Serial No.: 09/778,548 OCT 1 4 2003 Patent and Trademark Office (Modified) INFORMATION TEMENT BY APPLICANT Applicant: David M. Lubman et al. SCLOSURE Ş Several Shorts If Necessary) 631 Filing Date: 02/07/01 Group Art Unit: (37 CFR § 1.98(b)) OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) AM Reid et al., Capillary column chromatography improves sample preparation for mass spectrometric analysis: complete characterization of human alpha-enolase from two-dimensional gels following in situ proteolytic digestion, Electrophoresis, 19(6):946-955 (1998) 50 Righetti, Isoelectric focusing : theory, methodology, and applications, Elsevier Biomedical Press; Elsevier North Holland, 1st, (1983) 51 Rosenfeld et al., In-gel digestion of proteins for internal sequence analysis after one- or two-dimensional gel electrophoresis, Anal Biochem, MΜ 52 203(1):173-179 (1992) 53 Sanchez et al., Inside SWISS-2DPAGE database, Electrophoresis, 16(7):1131-1151 (1995) Sirover, New insights into an old protein: the functional diversity of mammalian glyceraldehyde-3-phosphate dehydrogenase, Biochim Biophys Acta (BBA) - Protein Structure and Molecular Enzymology, 1432(2):159-184 (1999) 54 Steller, Mechanisms and genes of cellular suicide, Science, 267(5203):1445-1449 (1995) 55 ten Hoeve et al., Isolation and chromosomal localization of CRKL, a human crk-like gene, Oncogene, 8(9):2469-2474 (1993) 56 Wall et al., Isoelectric focusing nonporous RP HPLC: a two-dimensional liquid-phase separation method for mapping of cellular proteins 57 with identification using MALDI-TOF mass spectrometry, Anal Chem, 72(6):1099-1111 (2000) Wall et al., Rapid profiling of induced proteins in bacteria using MALDI-TOF mass spectrometric detection of nonporous RP 58 HPLC-separated whole cell lysates, Anal Chem, 71(17):3894-3900 (1999) Welsh et al., Variation in expression of hsp27 messenger ribonucleic acid during the cycle of the seminiferous epithelium and co-localization 59 of hsp27 and microfilaments in Sertoli cells of the rat, Biol Reprod, 55(1):141-151 (1996) 60 Yates, Mass spectrometry and the age of the proteome, J Mass Spectrom, 33(1):1-19 (1998) Zugaro et al., Characterization of rat brain stathmin isoforms by two-dimensional gel electrophoresis-matrix assisted laser DW 61 desorption/ionization and electrospray ionization-ion trap mass spectrometry, Electrophoresis, 19(5):867-876 (1998) Chong et al., Rapid profiling of E. coli proteins up to 500 kDa from whole cell lysates using matrix-assisted laser desorption/ionization 62 time-of-flight mass spectrometry, Rapid Commun Mass Spectrom, 11(17):1900-1908 (1997) Opiteck et al., Two-dimensional SEC/RPLC coupled to mass spectrometry for the analysis of peptides, Anal Chem, 69(13):2283-2291 63 (1997)Regnier and Huang, Future potential of targeted component analysis by multidimensional liquid chromatography-mass spectrometry, J 64 Chromatogr A, 750(1-2):3-10 (1996) Andrews et al., Analysis of DNA adducts using high-performance separation techniques coupled to electrospray ionization mass 65 spectrometry, J Chromatogr A, 856(1-2):515-526 (1999) 66 Ball, Purification of synthetic peptides with the aid of reversible chromatographic probes, J Chromatogr A, 686(73-83)(1994) 67 Binz et al., A molecular scanner to automate proteomic research and to display proteome images, Anal Chem, 71(21):4981-4988 (1999) Davidsson and Nilsson, Peptide mapping of proteins in cerebrospinal fluid utilizing a rapid preparative two-dimensional electrophoretic 68 procedure and matrix-assisted laser desorption/ionization mass spectrometry, Biochim Biophys Acta, 1473(2-3):391-399 (1999) Lee, Protein separation using non-porous sorbents, J Chromatogr B Biomed Sci Appl, 699(1-2):29-45 (1997 69 Medzihradszky et al., Protein sequence and structural studies employing matrix-assisted laser desorption ionization-high energy 70 collision-induced dissociation, International Journal of Mass Spectrometry and Ion Processes, 160(1-3):357-369 (1997) Nimura et al., Fast protein separation by reversed-phase high-performance liquid chromatography on octadecylsilyl-bonder non-porous silica gel. Effect of particle size of column packing on column efficiency., J Chromatogr, 585(207-211 (1991) 71 Richmond, High-throughput flow injection analysis-mass spectrometry with networked delivery of colour rendered results: the characterisation of liquid chromatography fractions, J Chromatogr A, 835(29-39 (1999) S 72 From proteins to proteomes: large seale protein identification by two-dimensional electrophoresis to Biotechnology (N-V), 14(1):61-65-(1996) 2-27-03 Date Considered: Examiner: EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

631

U.S. Department of Commerce Serial No.: 09/778,548 Attorney Docket No.: UM-06102 FORM PTO-1449 Patent and Trademark Office (Modified) Applicant: David M. Lubman et al. TEMENT BY APPLICANT CLOSURE S INFORMATION If Necessary) Filing Date: 02/07/01 Group Art Unit: (37 CFR § 1.98(b)) OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) Toribio et al., J. Chromat. B 684:1 [1996] reviews methods for the chromatographic and electrophoretic purification of pyridine nucleotide-74 Houen et al., Characterization of protein carboxy-terminal ends using carboxypeptidase peptide Y: Sequence, composition, and identification MA of the carboxy-terminal peptide by peptide mapping, Methods Molecular Cellular Biology, 3(4):175-182 (1992) (abstract only) 75 Raznukov et al., Selective digital filtering of mass spectra of chromatography data for determination of tributures, Advances in Mass Spectrometry, 14 (EO44280/44281-EO44280/44211) (1998) (abstract only) 76 SZE et al., Time of flight effects in matrix assisted laser description/ionization Fourier transform ma Spectrom, 13(5):398-496 (1999) (abstract only) 77 Wall et al., Isoelectric focusing nonporous silica reversed-phase high-performance liquid chromatography/electrospray ionization time-of-flight mass spectrometry: a three-dimensional liquid-phase protein separation method as applied to the human erythroleukemia 78 cell-line, Rapid Commun Mass Spectrom, 15(18):1649-1661 (2001) Wall et al., Three-dimensional protein map according to pl, hydrophobicity and molecular mass, J Chromatogr B Analyt Technol Biomed 79 Life Sci, 774(1):53-58 (2002) Zgoda et al., Prediction and experimental confirmation of the cytochrome b5 three-dimensional peptide map, Physical Chemical Biology and Medicine, 2(3):135-142 (1995) (abstract only) 80 Wilkins and Williams, Cross-species protein identification using amino acid composition, peptide mass fingerprinting, isoelectric point and molecular mass: a theoretical evaluation, J Theor Biol, 186(1):7-15 (1997) (abstract only) 81 Anderson et al., A two-dimensional gel database of rat liver proteins useful in gene regulation and drug effects studies, Electrophoresis, 82 12(11):907-930 (1991) Damerval, Quantification of silver-stained proteins resolved by two-dimensional electrophoresis: genetic variability as related to abundance 83 and solubility in two maize lines, Electrophoresis, 15(12):1573-1579 (1994) Kahn, From genome to proteome: looking at a cell's proteins, Science, 270(5235):369-370 (1995); 84 Neidhardt et al., Genomically linked cellular protein databases derived from two-dimensional polyacrylamide gel electrophoresis. 10(2):116-122 (1989) 85 Electrophoresis, 10(2):116-122 (1989) O'Farrell, High resolution two-dimensional electrophoresis of proteins, J Biol Chem, 250(10):4007-4021 (1975) M 86 Patterson, Matrix-assisted laser-desorption/ionization mass spectrometric approaches for the identification of gel-separated proteins in the 87 5-50 pmol range, Electrophoresis, 16(7):1104-1114 (1995) Aebersold et al., Internal amino acid sequence analysis of proteins separated by one- or two-dimensional gel electrophores after in Sign proteins on nitroellulase. Proc Netl Acad Sci 11 S. A. 24/200-6070-6074 (1002) 88 protease digestion on nitrocellulose, Proc Natl Acad Sci U S A, 84(20):6970-6974 (1987) Brown and Cooper, Regulation, substrates and functions of src, Biochim Biophys Acta, 1287(2-3):121-149 (1996) 89 Cohen and Chait, Mass spectrometry of whole proteins eluted from sodium dodecyl sulfate-polyacrylamide gel electrophoresis gels, Anal Biochem, 247(2):257-267 (1997) 90 Courchesne et al., Comparison of in-gel and on-membrane digestion methods at low to sub-pmol level for subsequent peptide and 91 fragment-ion mass analysis using matrix-assisted laser-desorption/ionization mass spectrometry, Electrophoresis, 18(3-4):369-381 (1997) Davidsson et al., Characterization of proteins from human cerebrospinal fluid by a combination of preparative two-dimensional liquid-phase 92 electrophoresis and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry, Anal Chem, 71(3):642-647 (1999) Dawson et al., MCF10AT: a model for the evolution of cancer from proliferative breast disease, Am J Pathol, 148(1):313-319 (1996) 93 Egan et al., Activation of Src in human breast tumor cell lines: elevated levels of phosphotyrosine phosphatase activity that preferentially recognizes the Src carboxy terminal negative regulatory tyrosine 530, Oncogene, 18(5):1227-1237 (1999) 94

Marsiles Examiner: **EXAMINER:** 

describes a structural and fucntional review of p53

372(1-2):281-289 (1998)

95

96

97

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Gottleib and Oren, p53 in growth control and neoplasia, Biochimica et Biophysica Acta, 1287(2-3):77-102 (1996). This publication

Date Considered:

Hayakawa et al., Isoelectric focusing of biotinidase and lipoamidase with the addition of non-ionic detergent, Anal Chim Acta,

Haynes et al., Proteome analysis: biological assay or data archive?, Electrophoresis, 19(11):1862-1871 (1998) (abstract only)

U.S. Department of Commerce **FORM PTO-1449** Attorney Docket No.: UM-06102 Serial No.: 09/778,548 OCT 1 6 2003 Patent and Trademark Office (Modified) INFORMATION FELCLOSURE STA MENT BY APPLICANT Applicant: David M. Lubman et al. hyeral Sheets 631 Group Art Unit: Filing Date: 02/07/01 (37 CFR § 1.98(b)) OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) Henzel et al., Identifying proteins from two-dimensional gels by molecular mass searching of peptide fragments in protein sequence databases, Proc Natl Acad Sci U S A, 90(11):5011-5015 (1993) MA 98 Lehm and Langen, Mass spectrometry: a tool for the identification of proteins separated by gels, 21(2):411-429 (2000) 99 Li et al., Development of a three-dimensional topographic map display for capillary electrophoresis/mass spectrometry with an ion trap/reflectron time-of-flight mass spectrometer detector: applications to tryptic digests of isoforms of myelin basic protein, J Am Soc Mass 100 Spectrom, 9(7):701-709 (1998) Liang et al., Characterization of SDS--PAGE-separated proteins by matrix-assisted laser desorption/ionization mass spectrometry, Anal Chem, 68(6):1012-1018 (1996) 101 Liang and Pardee, Differential display of eukaryotic messenger RNA by means of the polymerase chain reaction, Science, 102 257(5072):967-971 (1992) Link et al., Direct analysis of protein complexes using mass spectrometry, Nat Biotechnol, 17(7):676-682 (1999) 103 Loo et al., Mass Spectrometry of Proteins Directly from Polyacrylamide Gels, Anal Chem, 68(11):1910 - 1917 (1996) 104 Lopez, Better approaches to finding the needle in a haystack: optimizing proteome analysis through automation, Electrophoresis, 105 21(6):1082-1093 (2000) MacNair et al., Rapid separation and characterization of protein and peptide mixtures using 1.5 microns diameter non-porous silica in packed 106 capillary liquid chromatography/mass spectrometry, Rapid Commun Mass Spectrom, 11(12):1279-1285 (1997) Maggiolini et al., Adrenal androgens stimulate the proliferation of breast cancer cells as direct activators of estrogen receptor alpha, Cancer Res, 59(19):4864-4869 (1999) 107 Mao et al., Activation of c-Src by receptor tyrosine kinases in human colon cancer cells with high metastatic potential, Oncogene, 108 15(25):3083-3090 (1997) Michael, Detection of electrospray ionization using a quadrupole ion trap storage/reflectron time-of-flight mass spectrometer, Anal Chem, 65(2614-2620)(1994) 109 Miller et al., Differential display, subtractive hybridization, and application of methodology to search for point mutations to identify genetic 110 defects responsible for progression in MCF10AT model of human breast disease, Electrophoresis, 20(2):256-260 (1999) Miller'et al., Xenograft model of progressive human proliferative breast disease, J Natl Cancer Inst, 85(21):1725-1732 (1993) 111 Mills et al., Prospective study of exogenous hormone use and breast cancer in Seventh-day Adventists, Cancer, 64(3):591-597 (1989) 112 Molinari et al., Estradiol induces functional inactivation of p53 by intracellular redistribution, Cancer Res, 60(10):2594-2597 (2000) 113 Nilsson et al., Identification of proteins in a human pleural exudate using two-dimensional preparative liquid-phase electrophoresis and 114 matrix-assisted laser desorption/ionization mass spectrometry, Electrophoresis, 20(4-5):860-865 (1999) Ottenhoff-Kalff et al., Characterization of protein tyrosine kinases from human breast cancer: involvement of the c-src oncogene product, ŊΜ 115 Cancer Res, 52(17):4773-4778 (1992) Ozturk et al., Detection of c-erbB-2 mRNAs using dig-labelled oligonucleotide probe with in situ hybridisation in human breast carcinoma: comparison with immunohistochemical results, Anal Cell Pathol, 16(4):201-209 (1998) 116 Porter et al., Role of estrogen receptor/Sp1 complexes in estrogen-induced heat shock protein 27 gene expression, Mol Endocrinol, 117 10(11):1371-1378 (19960) Qian and Lubman, Analysis of tryptic digests using microbore HPLC with an ion trap storage/reflectron time-of-flight detector, Anal Chem, 118 67(17):2870-2877 (1995) Rodriguez et al., Towards stoichiometric silver staining of proteins resolved in complex two-dimensional electrophoresis gels: real-time 119 analysis of pattern development, Electrophoresis, 14(7):628-637 (1993) Rosen et al., Analysis of pp60c-src protein kinase activity in human tumor cell lines and tissues, J Biol Chem, 261(29):13754-13759 (1986) 120 2-27-03 Date Considered: Examiner:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form

**EXAMINER:** 

with next communication to applicant.

FORM PTO-1449 (Modified)

OCT 1 4 2003

U.S. Department of Commerce Patent and Trademark Office

Attorney Docket No.: UM-06102

Serial No.: 09/778,548

INFORMATION D

LOSURE STATMENT BY APPLICANT

Applicant: David M. Lubman et al. veral Sheets (Thecessary) 1631 Filing Date: 02/07/01 Group Art Unit: (37 CFR § 1.98(b)) OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) AM 121 Ruddon, Cancer biology, Oxford University Press, 3rd, 318-340 (1995) Russell et al., Cyclin D1 and D3 associate with the SCF complex and are coordinately elevated in breast cancer, Oncogene, 18(11):1983-1991 (1999) 122 Santner et al., MCF-10CA1 cell-lines: New highly tumorigenic derivatives of the MCF-10AT system, Proc Am Assoc Gancer Res, 39(202-123 (1998) (abstract only) Schweinfest and Pappas, Subtraction hybridization: an approach to the isolation of genes differentially expressed in cancer and other 124 biological system (Review), Intern J Oncol, 1(499-506)(1992) NW Shekhar et al., Transcriptional activation of functional endogenous estrogen receptor gene expression in MCF10AT cells: a model for early 125 breast cancer, Int J Oncol, 13(5):907-915 (1998) 126 Shevchenko et al., Mass spectrometric sequencing of proteins silver-stained polyacrylamide gels, Anal Chem, 68(5):850-858 (1996) Soule et al., Isolation and characterization of a spontaneously immortalized human breast epithelial cell line, MCF-10, Cancer Res, 50(18):6075-6086 (1990) ŊΝ 127 Sturtevant, Applications of differential-display reverse transcription-PCR to molecular pathogenesis and medical mycology, Clin Microbiol 128 Rev, 13(3):408-427 (2000) MM Tesarik et al., Estradiol modulates breast cancer cell apoptosis: a novel nongenomic steroid action relevant to carcinogenesis, Steroids, 64(1-2):22-27 (1999) 129 Tetu et al., Prognostic significance of heat-shock protein-27 in node-positive breast carcinoma: an immunohistochemical study, Breast MΜ 130 Cancer Res Treat, 36(1):93-97 (1995) Thomas et al., Exogenous estrogens and other risk factors for breast cancer in women with benign breast diseases, J Natl Cancer Inst, 131 69(5):1017-1025 (1982) Williams et al., Analysis of differential protein expression in normal and neoplastic human breast epithelial cell lines, Electrophoresis, 132 19(2):333-343 (1998) Yang and Lee, Capillary isoelectric focusing-electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry for protein characterization, Anal Chem, 70(15):3235-3241 (1998) 133 Figeys and Aebersold, Nanoflow solvent gradient delivery from a microfabricated device for protein identifications by electrospray ionization mass spectrometry, Anal Chem, 70(18):3721-3727 (1998) (abstract only); 134 Figeys et al., Data-dependent modulation of solid-phase extraction capillary electrophoresis for the analysis of complex peptide and 135 phosphopeptide mixtures by tandem mass spectrometry: application to endothelial nitric oxide synthase, Anal Chem, 71(13):2279-2287 (1999) (abstract only); Figeys et al., Protein identification by solid phase microextraction-capillary zone electrophoresis-microelectrospray-tandem mass 136 spectrometry, Nat Biotechnol, 14(11):1579-1583 (1996) (abstract only); MFigeys et al., "An integrated microfluidics-tandern mass spectrometry system for automated protein analysis," Anal. Chem. 70:3728 (1998) 137 (Abstract only); Figeys et al., Microfabricated device coupled with an electrospray ionization quadrupole time-of-flight mass spectrometer: protein identifications based on enhanced-resolution mass spectrometry and tandem mass spectrometry data, Rapid Commun Mass Spectrom, 138 12(20):1435-1444 (1998) (Abstract only); BW Figeys et al., A microfabricated device for rapid protein identification by microelectrospray ion trap mass spectrometry, Anal Chem, 139 69(16):3153-3160 (1997); Figeys et al., Optimization of solid-phase microextraction - capillary zone electrophoresis - mass spectrometry for high sensitivity protein 140 identification, Electrophoresis, 19(13):2338-2347 (1998) (abstract only) IN Hunt et al., Characterization of peptides bound to the class I MHC molecule HLA-A2.1 by mass spectrometry, Science. 1992 Mar 141 6;255(5049):1261-3 (abstract only) DW Flyer, et al., Identification by Mass Spectrometry of CD8+-T-Cell Mycobacterium tuberculosis Epitopes within the Rv0341 Gene Product, Infection and Immunity, 70(6):2926-2932; (June 2002); 142  $\mathcal{M}\mathcal{G}$ Henderson et al., HLA-A2.1-associated peptides from a mutant cell line: a second pathway of antigen presentation, Science. 1992 Mar 143 6;255(5049):1264-6 (abstract only) austo Examiner: 12-27-03 Date Considered: EXAMINER:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.